


Woodstock Planning Board's



Town of Woodstock Timber Harvest Handbook

photo: Gale Brownlee

Table of Contents

Philosophical Statement	1
Who Must Apply for a Logging Permit	2
Who is Exempt from Applying	2
What Logging Activities are Prohibited	2
What are the Components of a Logging SUP Application	3
TWEQR/SEQR info	5
General Recommendations and Standards for Logging	6
Certification Program	8
Special Use Permit Process for Commercial Logging Applications	9
Helpful Application Hints	11
Additional Resources	12

PHILOSOPHICAL STATEMENT

Timber harvesting, also referred to as "commercial logging", has historically been recognized as an important economic activity in the Town of Woodstock. The economic value of timber harvesting to land owners must be balanced by the economic value of a pristine environment to the larger community. Tree harvesting and the related retention of viable forested areas are recognized as being beneficial for forest health (prevention of forest fires and improved tree growth) and watershed areas (reduced velocity of storm water runoff, erosion prevention, and shading effects preserve water quality).

Local lumber provides an important contribution to the existing market demand for paper and lumber and must compete with outside sources. The New York State Department of Environmental Conservation (NYSDEC) recognizes that a well-managed forest is healthy, scenic, contributes to the protection of watershed systems, and provides economic value. Planned timber harvesting improves forest productivity, wildlife habitats and opportunities for recreational access.

Properly conducted logging operations are consistent with the purposes of the Zoning Law of the Town of Woodstock which state that the law was enacted:

"To encourage the most appropriate use of land in the Town in order to conserve and enhance the value of property";

"...to protect and enhance existing wooded areas, scenic areas, ..."; and

"To protect the Town against...objectionable land uses and operations".

WHO MUST APPLY for a LOGGING PERMIT?

The Zoning Law of the Town of Woodstock permits "Forestry Uses (Commercial Logging)" in the Land Conservation (LC), Residential (R5) and (R3) and Light Industrial (LI) Zoning Districts. A Special Use Permit (SUP) is required for Commercial Logging activities on parcels of five (5) or more acres of forested land. An application for approval of commercial logging in the Town of Woodstock requires review under the Zoning Law of the Town of Woodstock, in accordance with the Town of Woodstock Environmental Quality Review (TWEQR) law and the related New York State Environmental Quality Review regulations (SEQR).

If the logging activities do not fall under the exempt activities described below, you will need a Special Use Permit (SUP) for commercial logging in the Town of Woodstock, as described in the Zoning Law of the Town of Woodstock, Section VI.B.11. (Exempt activities may be subject to other provisions or requirements of the Zoning Law or other local regulations.)

WHO is EXEMPT from APPLYING?

- Timber harvesting on one parcel or on contiguous parcels which have a total area less than five (5) acres.
- The following specific harvesting and clearing activities (See Section VI.B.11.j):
 - Harvesting of Christmas trees;
 - Clearing of land for rights-of-way for utilities;
 - Reasonable site clearing preparatory to construction of a building for which a building permit has been issued;
 - Clearing and maintenance of land for agricultural purposes;
 - Harvesting of trees and firewood for the personal use of the property owner, not to exceed twenty (20) cords per year.

WHAT LOGGING ACTIVITIES are PROHIBITED?

- Logging operations shall not take place between 7:00PM and 7:00AM.
- Clear cutting is not allowed in the Scenic Overlay (S-O) District.

WHAT are the COMPONENTS of a LOGGING SUP APPLICATION?

A Special Use Permit (SUP) application for logging can be obtained from the Planning Board Office. The completed application must include the SUP application, a Forest Management Plan, a copy of the Timber Sales Agreement (prices may be blacked out), a site plan/map and possibly a topographical map, depending on the terrain. An application for Site Plan Review with appropriate illustrations may also be requested. The SUP application includes a TWEQR/SEQR Environmental Assessment Form (EAF) to insure compliance with state and local environmental laws.

Below is a detailed description of the materials that are required as part of a commercial logging application in accordance with the Zoning Law Section VI.B.11.b. (see appendix for zoning law excerpt) :

1. The SUP Application must include:
 - a. The front page filled out completely. Application hints: The Pertinent Sections of the Zoning Law, are Sec.VI.B.11.a-j & Sec.E.1-3; the list of all contiguous property owners may be submitted on a separate sheet.
 - b. A letter authorizing the logger, forestry consultant or any other third party to represent the land owner, if the owner is not representing himself,
 - c. A waiver form, when applicant is requesting a requirement to be waived,
 - d. The Town's Short Environmental Assessment Form (See the TWEQR section below for more information).
 - e. 1) A copy of Stream Bank Disturbance Permit issued by the New York State Department of Environmental Conservation (the NYSDEC), if required, or other NYSDEC permits and description of how timber harvesting plan complies with permit(s) and any other pertinent regulations. 2) Proof of contact with the New York City Department of Environmental Protection (NYCDEP), usually in the form of NYCDEP Recommendations, if logging is in the New York City Watershed.
 - f. signature of owner and date.
2. The Forest Management Plan must include:
 1. The land area, in acres, of the parcel to be logged,
 2. Approximate or estimated number of existing trees on site or lot(s), and estimated number of trees to be harvested. This can be expressed as "trees per acre" which may vary over different parts of the site to be logged. Summarize these estimates in a list or table and provide explanation, as necessary. An inventory of the types of trees to be harvested, as well as, a maximum

- number of trees to be harvested from any one acre should also be included.
- c. **Description of all streams and waterways on lot(s), any proposed activities which may affect them (potential impacts) and mitigation measures to be taken. Reference to contact with NYSDEC on any stream crossings.**
 - d. **A description of proposed maintenance and repair of roads, pathways and loading/landing areas.**
 - e. **Location, width and purpose of all proposed buffer areas. Buffer areas should be established to provide visual screening from nearby roads, residences, neighboring property lines and elevated or scenic areas. Buffers typically provide for areas where no clearing or disturbance occurs. (see the general recommendations section for more on buffers)**
 - f. **Any other mitigation measures planned to:**
 - **prevent erosion and sedimentation;**
 - **preserve wildlife habitats;**
 - **preserve aesthetic values of the land; and**
 - **minimize visual impacts from roads.**
 - e. **Clean-up and reclamation plan. Describe specific measures proposed for cleanup and reclamation of site during harvesting and at the completion of logging operations, including treatment of tops and reseedling plan for landing and skid roads.**
 - g. **A description of the time schedule for all activities including road improvements, harvesting, mitigation measures, cleanup and reclamation.**
3. **The Site Plan: Size of land area proposed for logging must be sketched out. The site plan should include the location of major skid roads, access paths and landing areas on lot(s), a description and illustration of all streams and waterways and planned methods of crossing (i.e. indicate and label culverts or water bars), an indication of open and forested areas, location and width of all proposed buffer areas, an owner compliance statement, an area map, a north arrow, map title and scale. Application hint: a copy of a survey or enlargement of the tax map may be used as a base map for this plan.**
4. **Performance Bond to insure proper clean-up, in an amount and form to be determined by the Planning Board (see Zoning Law Section VI.B.11.e). The minimum amount of a Performance Bond is generally determined by the following formula:**
- | | |
|---|---------------|
| Avg. 12 trees or under per acre: | \$1000 |
| Slopes in excess of 30% on 25% of lot(s): add'l | \$500 |
| Possibility of impacting Town road/bridge: add'l | \$500 |

Please note: Performance bonds may be held until the Town is assured reclamation and restoration efforts have been successful. This may involve waiting for one growing or wet period to pass to insure reseeding and water management techniques have worked.

- 5. Copy of a signed contract between the logger and property owner(s), however monetary amounts may be omitted or blocked out.**

TWEQR/SEQR Environmental Assessment Form (EAF) and Review

- All proposed logging applications require a Short Environmental Assessment Form (Short EAF), consisting of twelve short-answer questions for the applicant, to be submitted to the Planning Board. However in some cases, the Planning Board may require that a Full Environmental Assessment Form (Full EAF) be prepared and submitted.**
- Any action occurring in a NYSDEC-designated wetland (designated as Critical Environmental Areas [CEA's] by the Town of Woodstock) is a Type I Action under the TWEQR Law and would require a Full EAF and circulation of a notice regarding the Planning Board's intent to be Lead Agency in a coordinated TWEQR/SEQR review. However, a Type I Action does not necessarily require the preparation of an Environmental Impact Statement (EIS).**
- A TWEQR Visual EAF Form may also be required to provide an assessment of any visual impacts as deemed necessary by the Planning Board.**
- After review of a complete application and EAF that fully describes proper mitigation measures for potential environmental impacts, the Planning Board may issue a Negative Declaration, which is a TWEQR/SEQR determination of non-significance. A Negative Declaration ("Neg Dec"), meaning that the proposed action will not result in significant adverse environmental impacts, concludes the environmental review process. A Negative Declaration is issued in most cases and typically leads to approval of the application.**
- If the Planning Board finds the proposed logging will result in significant environmental impacts, a Positive Declaration, which is a TWEQR/SEQR determination of significance, may be issued. The Applicant would then be required to prepare an Environmental Impact Statement (EIS). This may occur in cases involving very large tracts of land and where a significant proportion of tree removal per acre is proposed.**

GENERAL RECOMMENDATIONS and STANDARDS for LOGGING

Buffers

Logging applications generally propose buffer areas ranging from 50 to 100 feet in width. The Planning Board prefers buffers of a width of 100 feet especially where areas proposed for harvesting are near residences, roads or scenic areas. If an 100-foot buffer is not proposed, an applicant should provide photographs of existing conditions showing road frontages and adjacent residential areas to indicate that a 100-foot buffer is not necessary.

Tree Cutting

Some general guidelines about the selection and actual cutting of trees are offered below:

- Avoid undercutting. That is, the harvesting of higher quality trees with the result of leaving behind substandard trees is discouraged.
- Avoid logging in wet areas or during wet periods to reduce impacts on soils.
- Avoid harvesting on streambanks, particularly on steep areas near streams, to prevent disturbance of soils and potential erosion and sedimentation effects.
- Trees should be felled away from watercourses and wet areas.

Skidding and Hauling

- Skidding and hauling should be scheduled during the dry season of the year (typically summer months), or when the ground is frozen.
- Avoid skidding and hauling during periods of rain, particularly when the ground is saturated.
- Any existing substandard haul and skid road system that will be used for logging should be regraded and stabilized prior to use.
- Water bars should be utilized to intercept runoff from the haul and skid roads to direct runoff away from any on-site waterbodies.
- Skid trails should be confined to stable, upland areas and follow the natural topography and contour of the land. Uplands are land areas that are not wetlands, waterways or waterbodies.
- Avoid locating skid roads on steep slopes to reduce impacts on soils.
- Skidding up and down swales and watercourses (including dry channels) should be avoided. Such activity will result in disturbance of streams or natural or manmade drainageways that may change the direction of drainage and may result in erosion and sedimentation.

Culverts and other drainage structures may become clogged as a secondary effect.

- Where proposed skid trails must cross waterchannels, steps should be taken to provide a crossing that causes the least amount of disturbance. Skid trails should cross a watercourse or drainageway at a right angle, where the bank is low and stable and/or the stream bed is firm and rocky. The crossing should be designed to prevent stream or drainage flows from entering the trail system.

Landing Areas

- Landing areas should be located in dry, stable, upland areas. Their design should generally involve avoidance and protection of wetlands, waterways and waterbodies (see above). Slightly sloping landing areas are preferred.
- Any streams that flow in the vicinity of the landing area should be protected by a 200-foot setback distance as per NYSDEC Timber Harvesting Guidelines.

Drainage, Erosion and Sedimentation Control

The proper location of skidding or hauling roads and landing areas will prevent erosion and sedimentation to some degree. However, for intensive logging operations, or development of new skidding or hauling roads and new landing areas (where there are none in existence), specific erosion and sedimentation measures may be required. Some general measures for control of erosion and sedimentation may include:

- Grading, seeding, planting or mulching.
- Creation of temporary or permanent drainageways or enhancement of existing drainage improvements to channel increase runoff toward existing drainage areas or to areas that may appropriately receive sheet flow. A broad flat area that has a stable covering of forest mulch, ground cover or has been properly prepared with manmade materials may be acceptable as an area to receive sheet runoff. The Forest Management Plan should indicate whether drainage improvements and related erosion and sedimentation control measures are permanent or temporary. If these are temporary, the appropriate removal and reclamation after logging should be described.
- Sedimentation barriers may be necessary downslope from disturbed areas and upslope from wetlands, waterways and waterbodies in addition to the measures described above.

Reclamation and Cleanup

- **Disturbed areas (landing areas, loading areas, haul roads, etc.) should be regraded if deeply rutted and seeded and mulched to prevent erosion (see the list of alternative seeding mixtures in the Appendix). Temporary roads may involve more intensive treatment if they are to be restored to their original condition which may involve finer grading, planting of native vegetation and mulching with compatible materials.**
- **Water bars should be installed or regraded on new skid or haul roads to divert runoff from the roads. All water bars should have stabilized outlets.**
- **If surface and storm water runoff patterns have been altered by skid trail development, the pre-existing drainage pattern should be restored by appropriate means. Restored drainageways should be properly stabilized to prevent erosion and washout.**

For more information on logging standards and Best Management Practices see the NYSDEC material in the Appendix.

Certification Programs

The Town of Woodstock encourages applicants and potential applicants for commercial logging operations to consider participating in established certification programs.

As of September 1, 2000, the Town of Woodstock will require applicants to be participants in the NYSDEC's Cooperative Timber Harvesting Program, a voluntary program wherein loggers agree to follow Best Management Practices (soil, water, aesthetics, etc.).

The NYSDEC and the Empire State Forest Products Association also sponsors a certification program for area loggers, which may be available in the Kingston area, called the Trained Logger Certificate Program. The program provides training and information regarding first aid and safety, chainsaw safety, forest productivity, silviculture and general environmental considerations. As of September 1, 2001 the Town of Woodstock will require applicants to provide proof of certification under the Trained Logger Certificate Program or similar Certification Program.

Contact the NYSDEC Region 3 Forestry & Land Mgt office for additional information on these programs.

SPECIAL USE PERMIT PROCESS for COMMERCIAL LOGGING APPLICATIONS
Including the Requirements of the Town of Woodstock Environmental Quality Review
Law (TWEQR) and SEQR

The Special Use Permit application process and requirements are described below. The actual zoning provisions are included in the Zoning Law of the Town of Woodstock, Section VI.E, regarding Special Use Permit Procedure and Section VI.B.11., which specifically addresses commercial logging. The process described below incorporates sketch or full site plan, public hearing and TWEQR/SEQR review to generally illustrate how the Planning Board coordinates all aspects of an application. The review process may vary in terms of the order of each step and the length of time from a pre-application appointment or initial submittal through approval.

While the Planning Board will make every effort to coordinate, and when possible, expedite the steps in review of an application, the actual progress of an application depends in part on the completeness of the submitted forms, maps and materials and the responsiveness of each applicant. The steps in the process are as follows:

1. Optional pre-application appointment with the Planning Board's Clerk/Planning Technician.
2. Application Submittal: The following items shall be submitted by the Applicant to the Town of Woodstock Planning Board office:
 - a. Special Use Permit Application form for Commercial Logging, signed and dated, including a Forest Management Plan, Timber Sales Contract, etc.;
 - b. Town of Woodstock Environmental Quality Review (TWEQR) Environmental Assessment Form (EAF); and
 - c. Fees and any additional documents, such as an "Authorization to Represent" form or letter.
3. Initial Review by Planning Board Clerk/Planning Technician:
 - a. Initial review of the application for completeness and, if necessary, issuance of an Applicant Assistance List or Checklist of needed items.
 - b. Revision and resubmittal by the applicant of application, EAF, maps, plans and attached materials, when necessary;
 - c. The application and related materials may also be reviewed by the Planning Board's consultants; and
 - d. If determined to be complete, the application, EAF, maps, plans and attachments are scheduled for sketch review by the Planning Board.

Special Use Permit Process (Continued)

4. Completeness and Sketch Review: The application, EAF, maps, plans and attachments are reviewed by the Planning Board at a regular meeting:

- a. Planning Board conducts sketch review and determines if the Special Use Permit Application requires further information or is complete for preliminary review or possibly a public hearing;
- b. Planning Board determines whether to conduct a full site plan review (refer to the Zoning Law, Section VII.A); and
- c. Planning Board initiates TWEQR/SEQR review of proposed action by reviewing the EAF, and when required, by declaring their intent to act as Lead Agency (see TWEQR/SEQR above).
- d. Planning Board may decide review of the application and/or site by a Forester, Biologist or the DEC is necessary.

5. Preliminary Review: Planning Board conducts preliminary review at a regular meeting:

- a. Special Use Permit Application, form, maps, plans and attachments and the adequacy of the sketch plan, or preliminary site plan (see 4., b., above), are discussed;
- b. EAF (or EIS, if required) is reviewed; and
- c. Public Hearing is scheduled if the Planning Board determines the application to be complete for public hearing.

6. Public Hearing

- a. The public hearing is opened at a regular meeting.
- b. In certain cases, extended periods of preliminary and public review may be necessary. If an Environmental Impact Statement (EIS) is required, the review procedures will occur at this stage of the application. Refer to TWEQR and the New York State Environmental Quality Review (SEQR) regulations for more detail (NYCRR Part 617).

7. Planning Board Action: At a regular meeting of the Planning Board:

- a. The Planning Board renders a TWEQR/SEQR determination for the proposed action:
 - i. A Negative Declaration (Determination of Non-significance), which concludes the TWEQR/SEQR process ; or
 - ii. A Positive Declaration (Determination of Significance): An Environmental Impact Statement (EIS) must be prepared by the Applicant, then reviewed and accepted by the Planning Board. This process involves continued preliminary and public review as described in Steps 5 and 6, above.
- b. The Planning Board closes the public hearing and has sixty-two (62)

LOGGING HANDBOOK

Special Use Permit Process (continued)

days to makes decisions on the Special Use Permit Application, and if required, on the Site Plan Application, as follows:

- i. Approval of the Special Use Permit Application, and as necessary, approval of the Site Plan. The application process is now complete; or
- ii. Approval of the Special Use Permit Application with modifications, and as necessary, approval of the Site Plan with modifications. The application process is now complete; or
- iii. Denial of the Special Use Permit Application.

Helpful Application Hints

- Use the optional pre-application meeting as an opportunity to review and raise questions about application requirements. Additionally, bring up what you feel may be site constraints or areas of concern to get ideas about how these issues could be addressed in the materials submitted with an application.
- Prepare a complete application, including completed forms, illustrations, plans and attached descriptive materials for the initial submittal. A more complete application will increase the likelihood that an application will move smoothly through the review and approval process. Also, it is the Planning Board's policy that an application must be relatively complete before it appears on the Board's meeting agenda.
- Assemble the materials you submit in order of the requirements listed in the Zoning Law, Section VI.B.11 (Commercial Logging) to facilitate review by the Planning Board Clerk, the Planning Board and its consultant(s). The review of sample logging applications on file in the Planning Board office will assist you in preparing and organizing materials for a complete submittal.
- Although not necessarily required, it is helpful for the Planning Board to see photographs of the property and views of the parcel to be logged from key viewpoints around the property. Photographs should include views from nearby roads, adjacent properties (if permission is granted for access), and nearby scenic features such as a lake, pond, stream, mountain or trail. A photograph of the proposed driveway or road access is also useful.
- It is suggested that writing to or meeting with neighbors to inform them of the proposed logging activities may assist an applicant in identifying

LOGGING HANDBOOK

neighbors' potential areas of concern. This is not a required part of the process. However, some applicants have found that informing adjacent property owners about timber harvesting before an application or before a public hearing brings out questions that can be addressed as part of the application.

- Early in the preparation of an application, an applicant should check with the New York State Department of Environmental Conservation (the NYSDEC) and the New York City Department of Environmental Protection (NYCDEP) to see if any permits are required for:
 - stream disturbance or crossing;
 - clearcutting or road construction in a classified wetland; or
 - harvesting near Wild, Scenic, or Recreational Rivers or near waterbodies or waterways that are part of the New York City Watershed.

Additional Resources

New York State Department of Environmental Conservation (NYSDEC) - see Appendix for sample NYSDEC materials

New York City Department of Environmental Protection (NYCDEP)

Master Forest Owners volunteers may assist in developing management plans for land. They may be contacted through the Cornell Cooperative Extension Office or Regional NYSDEC Forestry Office.

appendix

- (2) Maximum structure coverage shall not exceed the allowed maximum in the district; and
- (3) No public assembly activities or activities which produce noise audible on neighboring properties shall be permitted, unless the standards described in § 260-62I and J of this chapter are fully complied with.

→ K. Commercial logging, provided that:

- (1) All parcels of five or more acres of forest vegetation, whether on one lot or on two or more contiguous lots to be harvested, shall be subject to a special use permit under these provisions.
- (2) A forest management plan shall be submitted prior to the beginning of any clearing or cutting. This plan shall include information pertaining to the following:
 - (a) Land area of parcel to be logged;
 - (b) Location of land area on tax maps;
 - (c) Approximate existing number of trees;
 - (d) Approximate number of trees to be harvested;
 - (e) Impact on all streams and waterways on the parcel;
 - (f) Site-specific measures for the prevention of erosion and preservation of wildlife habitats;
 - (g) Measures for the preservation of aesthetic values of the land;
 - (h) Maintenance and/or repair of roads, loading areas and access paths;
 - (i) Establishment of buffer zones to mitigate visual impact from roads, nearby elevations and neighboring parcels;
 - (j) Cleanup and reclamation plans;
 - (k) Locations of major skid roads and landing areas; and
 - (l) A time schedule for all of the above activities.
- (3) The Planning Board may engage a forestry consultant to examine the commercial logging proposal.
- (4) The Planning Board shall receive and approve a signed contract between the logger and property owner or owners.
- (5) The Planning Board shall require a performance bond or equivalent security to ensure proper cleanup and implementation of the forest management plan. In the case of a bond, the Town of Woodstock shall be named as an additional beneficiary insured. In the case of a security, the Town of Woodstock shall be named as a holder of the security.

- (6) All New York State Department of Environmental Conservation (DEC) regulations shall be strictly adhered to by the special use permit holder, and all required stream bank disturbance permits shall be secured and in effect before the commencement of logging.
- (7) An appropriate buffer of trees shall be maintained contiguous to any neighboring lot line or road.
- (8) No operations shall take place between 7:00 p.m. and 7:00 a.m.
- (9) Clear-cutting is prohibited in the Scenic Overlay (S-O) District.
- (10) Excluded from special use permit shall be the harvesting of Christmas trees; the clearing of land for rights-of-way for utilities; reasonable site clearing preparatory to construction of a building for which a building permit has been issued; the clearing and maintenance of land for agricultural purposes; and the harvesting of trees and firewood for the personal use of the property owner not to exceed 20 cords per year.

L. Contractor's yard, provided that:

- (1) The size of the contractor's yard shall be limited to one acre, including any structures relating to the contractor's yard;
- (2) The owner and operator of the contractor's yard shall reside on the lot upon which the contractor's yard is located or upon an adjoining lot;
- (3) There shall be no commercial sale of equipment, parts, sand, gravel, pipe, aggregate, or any other building supplies, with the exception of building materials and supplies transported by the owner or an employee of the contractor's yard and delivered to a customer as part of his or her contracting business;
- (4) Materials used in association with the contractor's yard may be temporarily stored within the yard and only within the yard;
- (5) No rental of equipment shall occur from the contractor's yard or from the lot on which the contractor's yard is situated or from an adjoining lot; and
- (6) The contractor's yard may be required to be screened. The screening preference shall be dense natural screening or compact evergreen screening with a recommended minimum height of six feet when planted or fencing, the type and height to be determined by the Planning Board.

M. Hotel or motel development, provided that:

- (1) Minimum residential lot area shown in § 260-16, the Schedule of Area and Bulk Regulations, for the zoning district in which the hotel or motel is proposed to be located shall be increased by 1,500 square feet for each guest room provided.
- (2) Minimum side and rear yard setback requirements shall be 100 feet if such yard abuts property in a residential district (R8, R5, R3, R1.5, HR or PRD).

ALTERNATIVE MIXTURES FOR SEEDING SKID TRAILS, ROADS, AND LOG LANDING AREAS

SEED MIXTURES	LBS/ACRE	LBS/1000 SQFT.	COMMENTS.
1. Creeping red fescue	20	1/2	Shade or sun,
Redtop	2	1/16	wet or dry sites,
Ky-31 Tall fescue	20	1/2	low cost
2. Ky-31 Tall fescue	20	1/2	Shade or sun,
*Lathco Flatpea	20	1/2	permanent openings drier sites
3. Creeping red fescue	20	1/2	partial sun or open
*Birdsfoot trefoil	8	1/4	deer/turkey food,
Ky-31 Tall fescue	20	1/2	relatively low cost
4. Creeping red fescue	20	1/2	partial sun or open
Ky-31 Tall fescue	10	1/4	permanent openings,
*Crownvetch	15	6/16	drier sites
5. Perennial ryegrass	30	3/4	temporary seeding, partial sun or open

Suggested Lime rate: 2 tons/acre (100 lbs/1000 sqft.)
Fertilizer: 400 lbs/acre of 5-10-10 (10 lbs/1000 sqft)
Mulch: Hay or straw @ 2 tons/acre (100 bales)

* Inoculate seed prior to planting.

Source: US Dept. of Agriculture
Soil Conservation Service
69 Ferndale - Loomis Road
Liberty, New York 12754
(914) 292-6471

Figure 31. Profile of skid road showing water bars.

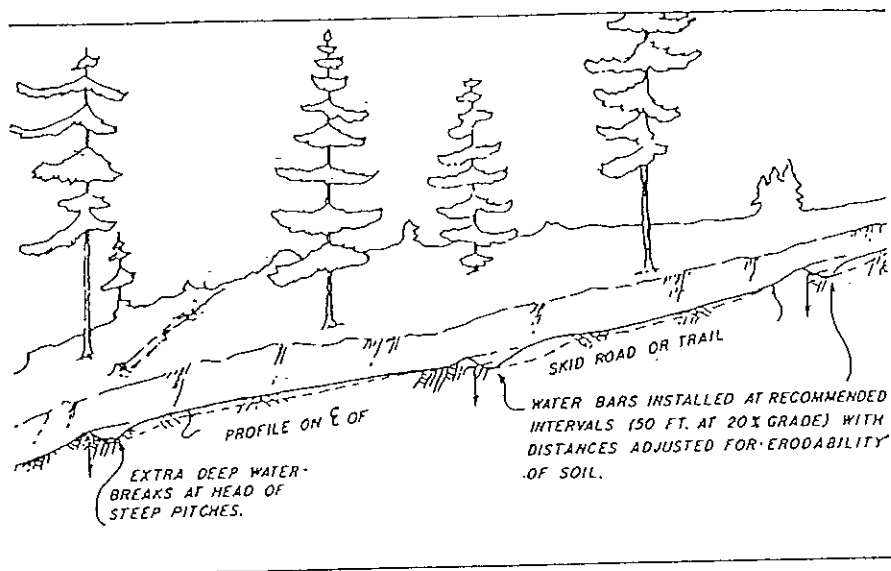


Table 3
Recommended Distances between Water Bars on
Skid Roads and Truck Roads Which Have Been
"Put to Sleep"

Grade of Road	Distance between Water Bars
Percent	Feet
2	250
5	135
10	80
15	60
20	45
25	40
30	35
40	30

*With the skid roads protected and "put to sleep" little attention will need to be given them during the ensuing years. And, when the time comes to remove another crop of timber from the area, the protected logging road will result in lower operating costs and correspondingly higher timber prices to the land owner.

TRY THEM . . . THEY WORK

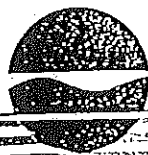
Good stewardship of natural resources means careful use. Careful use provides a proper inheritance for future generations while caring for our needs today.

New York calls upon landowners, timber harvesting contractors, forest managers and forest industries to harvest carefully. Everyone must work to keep our forests productive through safe and well planned logging. The guidelines listed prevent problems. Use them. Do your part. Be a good steward of our forest resources.

These guidelines were developed by the New York State Department of Environmental Conservation, the New York Society of American Foresters, and the College of Environmental Science and Forestry.

For more information contact:

New York State
Department of Environmental Conservation
Division of Lands and Forests
50 Wolf Road
Albany, NY 12233-4252
(518) 457-7431 or 7370



Department of Environmental Conservation

TIMBER HARVESTING GUIDELINES



What are they?

New York State
Department of Environmental Conservation

MARIO CUOMO, Governor
THOMAS L. JORLING, Commissioner

LF P-185 (7/92)—18a

The Timber Harvesting Guidelines

These guidelines have been designed to deal with problems caused during harvesting by soil erosion, siltation and inattention to aesthetics.

Following are recommendations on actions to take during harvesting to avoid these problems. These include all the timber harvesting (silvicultural) best management practices recommended for New York, plus additional aesthetic practices.

STREAMS AND WATER BODIES

Siltation comes from erosion when soil washes into streams and lakes. It reduces water quality and may harm fish spawning beds. With properly planned logging, erosion never starts. Streams can be protected from careless disturbance and water quality maintained.

What practices will protect streams, lakes, ponds and marshes, and maintain water quality?

Keep Stream Crossings To A Minimum And Plan Them Carefully

- check with the New York State Department of Environmental Conservation (DEC) about special regulations that apply to logging along wild, scenic and recreational rivers
- check with the DEC about permits for crossing classified streams
- cross streams by the most direct route and avoid crossing at bends and through pools
- find crossing sites that have low, stable banks, a firm stream bottom, and gentle slopes along the approaches
- cross at a few carefully chosen places, rather than any place that seems convenient.

- use temporary culverts, bridges or runways where stream bottoms or banks would otherwise be damaged, and remove them after use

Protect Stream Banks By Controlling Skidding And Felling Close To The Stream

- avoid cutting trees and destroying understory vegetation growing within 10 feet of the stream bank (that helps keep the banks in place and maintains shade over the water)
- don't skid up and down the stream channel (a good rule for intermittent streams, too)
- keep skidders back at least 50 feet from the water and winch off any logs that lie closer to the bank so they don't stir up the soil and start erosion (for slopes over 10 percent it is good to keep skidders back at least 100 feet)
- directionally fell trees so the tops land away from stream (keeps debris out of the water and skidders farther away from the banks)
- remove any logging debris that gets into the water so stream flow isn't affected
- when clearcutting, leave a 50-foot wide uncut strip along both sides of flowing streams, ponds and marshes (the shade provided keeps the water cooler)

ROADS, SKID TRAILS AND LANDINGS

Soil uncovered by skidding and truck traffic can erode if water runs over it. Poor drainage leads to mud holes. Erosion occurs if water is not diverted off the road surface; the steeper the slope, the greater the danger. Good design and proper maintenance make the best prevention.

How can erosion be prevented on landings, logging roads, skid trails and steep slopes?

Plan The Protection Of Slopes Exceeding 30 Percent

- on steep slopes set back roads and trails at least 150 feet from streams, ponds and marshes
- winch logs off steep slopes where possible, and minimize the number of skid trails and the amount of skidder traffic
- log steep slopes during dry weather when soils are dry, or log when the ground is frozen and snow covered
- after logging, regrade roads and primary skid trails and install diversion devices as needed

Carefully Locate, Design And Build All Roads And Skid Trails

- keep roads and skid trails out of wet and poorly drained spots, and off tops and toes of banks and slopes (that should keep machines from getting stuck, too, and make skidding and hauling more economical)
 - provide ways to divert running water off roads and primary skid trails when slopes exceed 10 percent (figure out where streams of water will run off during a rain or snow melt, and put in diversion devices to channel surface water off the road or trail)
 - keep roads back from streams, ponds and marshes (set them back 100 feet on slopes less than 30 percent, and 150 feet for steeper ones)
- don't run ditch water directly into a stream (stop roadside ditches before a stream

crossing and divert the water into the woods)

Carefully Locate Landings

- keep landings out of low spots and poorly drained places
- put landings on gently sloping ground that will give good drainage
- set back landings at least 200 feet from streams, ponds, lakes, and marshes to reduce chances of siltation from erosion off landing

ROADSIDES ALONG MAJOR TRAVEL CORRIDORS

Some people object to logging slash, hung-up trees, poor utilization, deeply rutted roads and landings and the like. Plan ahead to avoid buildup of these things. Be aware of the landscape. Logging just a little differently usually keeps the roadside area looking good.

What will help to make logging jobs look better along major travel corridors?

If Logging Along Major Travel Corridors Isn't Screened By A Hill, High Bank Or Other Topography, Maintain A 100-Foot Wide Scenic Buffer Strip Along The Roadside

- directionally fell trees so the tops land away from the road (that puts the slash further out of sight and reduces the need for top logging)
- use all merchantable products in each tree (people don't like to see unused logs and bolts left lying in the woods, and if you cut them out it automatically lops off many of the large branches, too)
- pull down hung-up or partly fallen trees, fell bent over and broken off trees and use merchantable material in them

Design, Location, and Use of Roads and Skid Trails

- Keep roads and skid trails out of wet and poorly drained spots, and off tops and toes of banks;
- Provide ways to divert running water off roads and primary skid trails by using water bars, broad-based drainage dips, and proper sloping of roads and trails as needed;
- Carefully choose road and trail location to minimize steepness and to bypass potential erosion problem areas.

Location and Use of Log Landings

- Keep landings out of low spots and poorly drained places;
- Put landings on gently sloping ground that will give good drainage;
- Set back landings at least 200 feet from streams, ponds, lakes, and marshes to reduce chances of siltation from erosion off landing.

Harvest Wisely

Good stewardship of natural resources means wise use. We can keep our forests productive without damaging our water and land resources, if we plan harvesting operations carefully. Help use our forest resources wisely by adopting these simple, voluntary measures.

Help Available

Need advice on the best methods for harvesting your timber? DEC foresters can help through the Cooperative Forest Management Program. If you need more extensive assistance, we can refer you to a private forester through our Cooperating Consultant Forester Program. Get in touch with the DEC office that covers your location.

New York State Department of Environmental Conservation Regional Forestry Offices

Region 1

Building 40, State University of New York
Stony Brook, N.Y. 11790 (516) 751-7900
Nassau, Suffolk

Region 2

2 World Trade Center, 61st Floor
New York, N.Y. 10047 (212) 488-2755
New York City

Region 3

R. D., Box C
Millbrook, N.Y. 12545 (914) 677-8268
Dutchess, Westchester, Putnam

Region 4

21 So. Pitt. Corners Road
New Paltz, N.Y. 12561 (914) 255-5453
Orange, Rockland, Sullivan, Ulster

Region 5

Jefferson Road, Stamford, N.Y. 12167 (607) 652-7364
Delaware, Montgomery, Otsego, Schoharie

Region 6

439 Main St., P. O. Box 430
Catskill, N.Y. 12414 (518) 943-4030
Albany, Columbia, Greene, Rensselaer, Schenectady

Region 7

Northville, N.Y. 12134 (518) 863-4545
Fulton, Hamilton

Ray Brook, N.Y. 12977 (518) 891-1370
Franklin, Clinton, Essex

Region 8

Box 220, Warrensburg, N.Y. 12885 (518) 623-3671
Saratoga, Warren, Washington

Region 9

Route 812, P. O. Box 31, Lowville, N.Y. 13367 (315) 376-3521
Jefferson, Lewis
30 Court St., Canton, N.Y. 13617 (315) 386-4546
St. Lawrence

225 No. Main St., Herkimer, N.Y. 13350 (315) 866-6330
Herkimer, Oneida

Region 10

Box 594, Sherburne, N.Y. 13460 (607) 674-2511
Broome, Chenango, Madison

Box 1169, Cortland, N.Y. 13045 (607) 753-3095
Cayuga, Cortland, Onondaga, Oswego, Tioga, Tompkins

Region 11

115 Liberty St., Bath, N.Y. 14810 (607) 776-2165
Chemung, Genesee, Livingston, Monroe, Ontario, Orleans,
Schuyler, Seneca, Steuben, Wayne, Yates

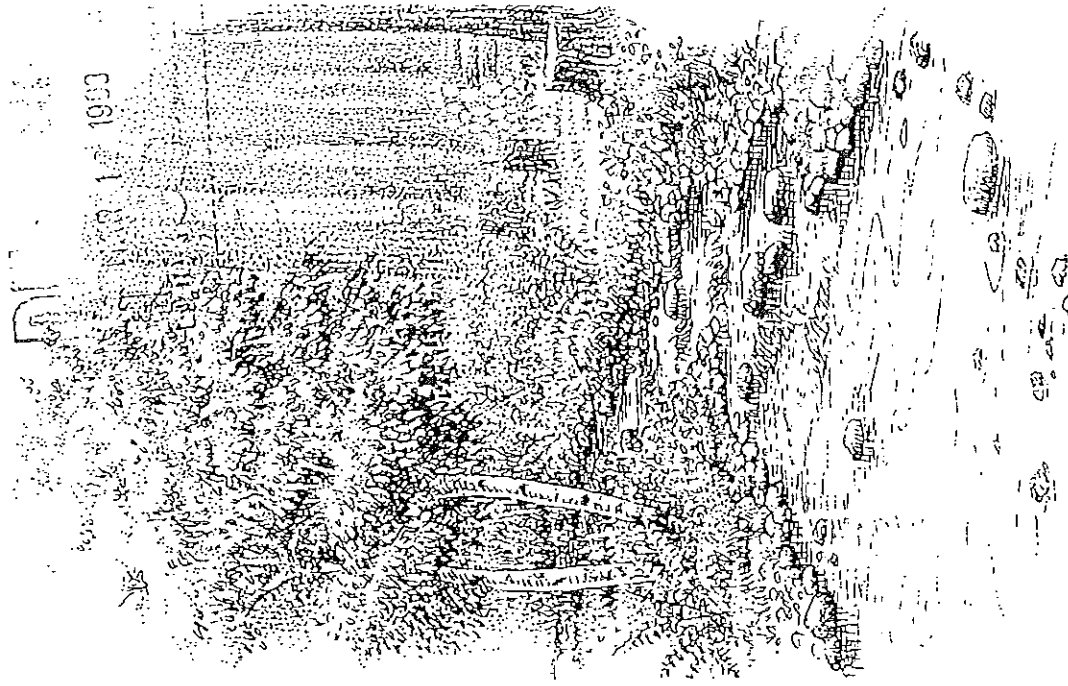
Region 12

R. D. 1, Box 4, Jamestown, N.Y. 14791 (716) 484-7151
Allegany, Cattaraugus, Chautauqua, Erie, Niagara, Wyoming

LE-P171 (7/81)

A Clean Harvest

Protecting Water Quality During Timber Harvests



Forestry and Water Quality

In accordance with Section 208 of the Federal Clean Water Act the New York State Department of Environmental Conservation has studied the contribution of forestry activities to water pollution problems in the State. Section 208 is designed to deal with "non-point" sources of water pollution—sources that are widely dispersed, so that pollutants are not traceable to a single identifiable facility.

Silvicultural 208 studies showed that the greatest potential for water quality degradation from forestry activities is associated with timber harvesting. Badly planned and carelessly performed logging operations may expose and disturb soils in ways that increase chances for erosion, which in turn may lead to sedimentation of surface waters.

Best Management Practices

As a result of these studies, the Department of Environmental Conservation has adopted a series of silvicultural best management practices which are incorporated in the State Water Quality Management Plan. These practices are designed to prevent or minimize soil erosion and sedimentation of waters from improperly designed and constructed logging roads, skid trails, log landings, and stream crossings. Proper site-specific planning for the use of the best management practices before forestry operations are begun can prevent problems in these areas from occurring.

The best management practices listed below represent the range of practices generally applicable to New York. However, variation in environmental conditions across the State and differences in proximity to water make it impractical to require application of each one for all cases involving

timber harvesting and road building. The following practices should be used as a checklist when evaluating a site. Those management practices best fitted to the local situation should then be implemented.

Landowners, resource managers, and timber harvesters are responsible for evaluating specific harvest sites and selecting management practices which will preserve water quality.

Crossing of Streams

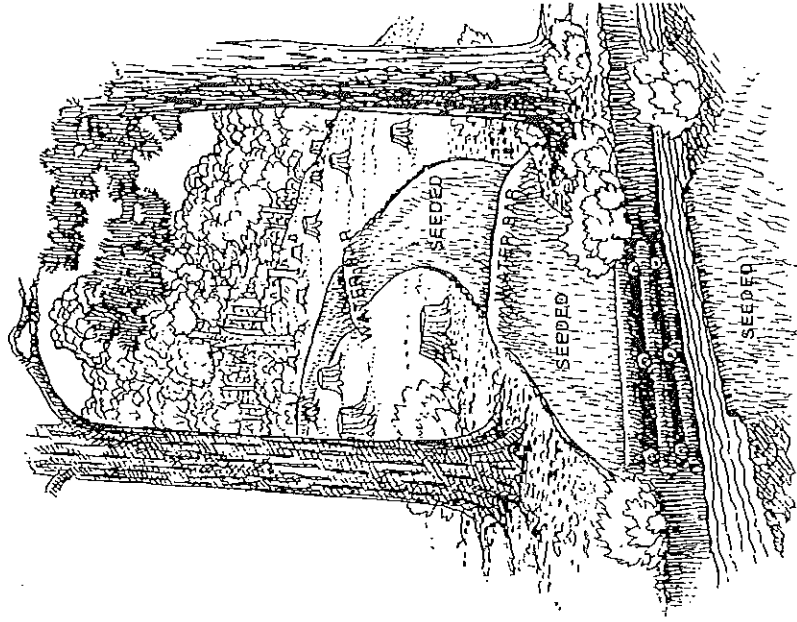
- Obtain Stream Protection Permit when required by New York State Law;
- Cross streams by the most direct route and avoid crossing at bends and through pools;
- Find crossing sites that have low, stable banks, a firm stream bottom, and gentle slopes along the approaches;
- Use temporary culverts, bridges, or runways where stream bottoms or banks would otherwise be damaged, and remove structures after use.

Harvesting of Timber Adjacent to Streams

- Avoid cutting trees and destroying understory vegetation growing within 10 feet of the stream bank;
- Keep skidders back at least 50 feet from the water and winch off any logs that lie closer to the bank so they don't stir up the soil and start erosion. For slopes over 10% maintain a buffer zone of at least 100 feet;
- Directionally fell trees so the tops land away from stream;
- When clearcutting, leave a 50-foot wide uncut strip along both sides of flowing streams, ponds, and marshes to keep the water shaded and prevent its heating up by direct exposure.

Felling and Skidding on Steep Slopes Adjacent to Water Bodies

- On steep slopes (over 30%), set back roads and trails at least 150 feet from streams, ponds, and marshes;
- Log steep slopes during dry weather when soils are dry, or log when the ground is frozen and snow covered;
- After logging, regrade roads and primary skid trails and install diversion devices and/or reseed as necessary.



- use care in skidding to protect understory vegetation (shrubs and saplings make a good natural screen)
- keep skidders back in the woods and off the right-of-way (that keeps the road banks from getting rutted and helps keep skid trails out of sight)
- cut lightly within 100 feet of the forest edge by keeping at least 50 square feet per acre of basal area in residual trees, including some big ones (that keeps a forest-like appearance along the road)
- keep in mind that trees standing directly at the edge of the woods provide the best screening
- keep stumps low

Wherever Possible, Keep Landings Out Of Sight And Dress Up Landings And Access Roads After Use

- put landings behind a hill, bank or land form that hides them from the road, or set landings back into the woods as far as practical (use a set-back of at least 200 feet whenever possible)
- build access roads somewhat curved (it is harder to see around a curve than up a straight road)
- lay out landings so the long axis lies perpendicular to the road
- keep entrances from the road narrow to reduce visibility from the roadside (widen the road once back in the woods)
- clear landings after use by burying debris or dragging waste material back into the forest (actually, if you skid out only usable parts of the tree, there won't be much waste at the landing)

- back blade landings and access roads so they are smooth and level and free of ruts and mud holes (then they look better and should rapidly seed into new vegetation)
- put in diversion devices at places where water might run down the roads and wash off soil into roadside ditches
- regrade and clean ditches along the roadside and close temporary roads
- where needed, seed access roads, landings and ditches (especially where they come close to the highway)
- pick up oil cans, lunch wrappers, broken cable and other junk

FIRE LAWS

Comply With New York's Fire Laws

- keep logging debris and log piles back at least 20 feet from the right-of-way
- lop all conifer tops
- check with DEC for more specific requirements for the town where you're harvesting

HOW TO PROPERLY HARVEST TREES

In several recent issues of the *Woodstock Times* you reported on a proposed timber harvesting plan for the Gugliotta property on Cold Brook Road. In these articles, several persons conjectured on the impact of timber harvesting. We wish to contribute to this discussion.

The Catskill Forest Association fully recognizes the reality that people can differ on the ethics of cutting trees and the role of wood in our consumer society. We likewise recognize the important contribution that wood, a renewable resource, has made to our personal and community welfare, and the need to manage it in a sustainable, low impact manner. The balance between the need to supply a valued product to society and the duty to provide for the continued health of the environment in which all creatures live must be continually examined by everyone. We fully support such a dialogue, especially one based on the substantial scientific record that has been established over the past century of forest management in this country.

The best way to protect a property during timber harvesting is to hire a professional forester to plan and supervise the operation. Many foresters are deeply concerned about the impact of harvesting. They continually educate themselves on the procedures and techniques of appropriate forest management. They live and work in the forest, and will suffer greatly if it is destroyed. In New York, however, no standards have been established for the practice of forestry or the qualifications to be a forester. Since anyone can call themselves a forester, landowners must investigate a forester's credentials and interview references to ensure the professionalism of the person they hire.

The relationship between the cutting of trees and water quantity/quality has been exhaustively studied. The Society of American Foresters (5400 Grosvenor Road, Bethesda, Maryland) summarized it in a report titled *The Reauthorization Of The Clean Water Act*. This research has shown that precipitation easily infiltrates most forest soils both before and after harvesting even after clear cutting. Since erosion occurs only during periods of overland flow, and since overland flow rarely occurs in forest soils, the likelihood of erosion is minimal. As we all know from last January, under the right conditions infiltration can be blocked and a significant erosion event can take place. It is unlikely that the intensity of those mud slides were related in any way to timber harvesting.

Nevertheless, poorly designed woods roads, skid trails and log concentration areas (landings) do contribute to erosion. The act of making them compacts the soil, reducing the soil's ability to absorb water. New York State has established timber harvesting guidelines which set forth appropriate best management practices to minimize negative impacts from roads and landings. If followed, neighbors and water supply agencies should have little concern about erosion. Any well-conceived harvesting plan and contract will require that these guidelines be followed.

Debates over the visual impact of a harvesting operation can be determined by calculating the "viewshed" of the harvesting area. A viewshed shows on a map where a given area can be seen from. It can be drawn on USGS topographic maps, but is easily produced with a computerized geographic information system. Rather than speculate and argue over visibility, the matter should be settled with such an analysis. Visual impact, though, is much more complicated. Since trees are tall, and most people look at a forest from a more or less horizontal perspective, the removal of individual trees may not have any impact on the aesthetics of the region. Many times I have not been able to see a harvest from a distance even when I knew it was there and I was looking for it. The most visible part of the harvest will be the landing. If properly screened and planned, its visual impact can be minimal. Many good examples exist in the Catskills.

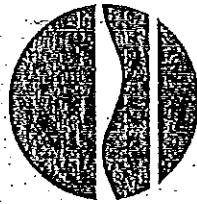
Wildlife responds well to forest management. Humans have limited the natural forces that once opened forests for natural regeneration. Many species of wildlife depend on ground vegetation for food and cover. Mature forests tend not to have such habitat. Tree removal may be the only way to create it. Often, as part of a harvest, some trees are killed and left standing to provide other habitat. As always, changes in habitat will favor some species over others. The same can be said for endangered species. Most of New York's threatened and endangered plants require open, full sunlight conditions. Maintaining a mature forest can, therefore, reduce their range.

The noise of a timber harvest emanates mostly from the landing, since it is close to the road. The forest insulates chain saw and skidder noise, except when these machines are used in the landing. As I have said before, if a landing is well designed with buffer strips, the noise can be minimized. Also, trucks hauling logs are no more noisy than milk trucks, which travel over our roads on a daily basis.

In the end, harvesting trees is only a tool to achieve the goals of a landowner, both public and private. Goals include improving forest health, recreation access, wildlife habitat, aesthetics, generating income and more. Trees should only be cut to attain such goals, many of which are mutually compatible. In addition, harvesting should only take place under sustainable conditions. Thus, with proper planning, timber harvesting should have little impact on the community, and may even help its economy.

The mission of the Catskill Forest Association is to promote forest stewardship in the Catskill region by forest landowners, timber harvesters, foresters and the general public by advocating the use of quality forest management practices to improve the health of the forest, to prevent threats to the forest ecosystem and which support conservation efforts.

Richard D. Sloman
Executive Director
Catskill Forest Association
Arkville



New York State Cooperating Timber Harvester Program

The Cooperating Timber Harvester (CTH) Program, sponsored by the New York State Department of Environmental Conservation (DEC), is designed to improve relations between landowners and timber harvesters in New York State. It will also promote the use of Timber Harvesting Guidelines for New York and Forest Practice Standards. In addition to improving landowner-harvester relations, the CTH program will also help protect our forest, land and water resources.

Under this program: DEC Will —

- Maintain and distribute a list of Cooperating Timber Harvesters to interested landowners;
- Maintain and make available to cooperating harvesters, a listing of landowners who have agreed to being so listed;
- On request, provide cooperating harvesters with business management assistance, and with advice on forest management and forest products marketing;
- Encourage landowners and cooperating harvesters to use written contracts which protect both parties;
- Upon request by a cooperating harvester, provide future notices of the sale of forest products on State lands;
- Conduct locally in each DEC Region, an annual meeting for cooperating harvesters.

Under the CTH Program:

Cooperating Timber Harvesters Will —

- Encourage landowners to use written contracts for timber sales in order to protect both themselves and timber harvesters;
- Encourage landowners to contact DEC Foresters for forest management advice;
- Follow the Timber Harvesting Guidelines for New York State;
- Follow the Forest Practice Standards for New York State;
- Harvest only those trees which have been designated for removal by a DEC Forester, a Cooperating Consultant Forester or the landowner.

Planning Today for Tomorrow's Forests

Good Harvesting begins with good planning.

When logging is planned in advance of the harvest, soil erosion and sedimentation of streams, ponds or lakes can be prevented or dramatically reduced.

A slight difference in logging practices can protect bodies of water from harmful disturbance, maintain existing water quality, and keep the area along woods' roads looking attractive.

Many people are deeply offended and concerned by logging slash, poor use of forest lands, hung-up trees and other evidence of careless logging.

Landowners, responsible harvesters and the general public all object to deeply rutted woods' roads, unsightly log-landings and any other visible despoiling of the forest landscape.

Through careful planning, the Cooperative Timber Harvester will avoid any environmentally or visually degrading logging practices.

Harvesting must be planned properly to assure continued abundance of trees and the wildlife that depend on them for food and shelter. Such planning must provide for protection of the soil in order to keep lands stable, and must also include measures to keep streams and other bodies of water in their natural state and free-flowing.

Our forest lands can meet all of the diverse needs and demands for them and the products they yield. Harvesters and landowners can help by planning today for a good harvest later — and for abundant forest, land and water resources for future generations to enjoy and use.